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## **METAMUSIC®: MUSIC FOR INNER SPACE**

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From ancient times to the present, philosophers and scientists have written and spoken of music as a healing agent and recognized its profound effect on human behavior and learning. The ancient Greeks believed that music was divinely created. Both Plato and Aristotle placed music at the core of their educational curricula, acknowledging its power to stimulate human thought and understanding.

I would like to share with you many of my insights drawn from ten years of working with *METAMUSIC*. The Professional Seminar has truly been my intellectual "home" since 1990 when I attended for the first time. My students had experienced such extraordinary results with the *HUMAN PLUS* series that I wanted to see exactly how these tapes differed from the multitudes of others. Usually, when I attend conferences I am one of the experts on sound, music, and the brain. It was a pleasant surprise to add to my knowledge of the effects of sound on the brain at the Professional Seminar.

The insights gained during that week in 1990 gave a quantum boost to my own research. I was deeply impressed by presentations that used computerized brain mapping to demonstrate synchronization of cortical brain waves in response to binaural-beat stimulation. Since that time I have never looked at the subject from quite as naive a perspective as I brought to that first seminar.

I was so impressed that when I went home, my students, my family, and I did Monroe tapes nonstop for a year. I returned the following year with undiminished enthusiasm for the technology but also with more than general interest. In the interim, eight of my current and former students had unfortunately contracted AIDS. My mission was to find how the Hemi-Sync® technology could help doctors and therapists to help AIDS patients. At the 1991 seminar, Jim Greene gave a fabulous presentation on his work with AIDS.<sup>1</sup> Many of us collaborated with Jim to identify a combo of tapes that would assist the healing process. Our

effort culminated in the *POSITIVE IMMUNITY PROGRAM*, which has helped many people with AIDS and other immune-compromising diseases.<sup>2</sup>

In my third through seventh years of attending the Professional Seminar I discovered the true magic of *METAMUSIC* with Hemi-Sync®. I still get chills when I remember a remarkable presentation by Suzanne Evans Morris, PhD, an internationally known speech-language pathologist who treats children with a wide range of developmental disabilities. She used *METAMUSIC* with alpha-theta frequencies with children suffering from autism or severe brain damage. I was awed by her video of an autistic child who could not tolerate touch. Within minutes of listening to *METAMUSIC*, the child moved toward its source and allowed herself to be gently massaged by Dr. Morris while the music played. Relaxation music without Hemi-Sync had no effect. For me, this dramatic image exemplified *METAMUSIC*'s "magical" effects. Coincidentally, that was the year that *METAMUSIC Inner Journey*, *Sleeping Through the Rain*, and *Cloudscapes* were introduced. I remember being mesmerized by the beauty of the three compositions and purchasing them for pure love of the music.

On returning home, I received another lesson in the true miracles that lie hidden in the combination of music and Hemi-Sync. One of my students, Aaron, was dying of AIDS-related complications. I took *Inner Journey*, *Sleeping Through the Rain*, and *Cloudscapes* to the hospital and left them with his mother, instructing her to put on the music whenever Aaron needed sleep or relief from pain.

Days later, on my second visit, I was greeted by a nurse who asked where to purchase the "miracle music" for the hospice wing. The nurse said that as long as the music was on, Aaron needed no morphine. I went into Aaron's room and got additional confirmation that *METAMUSIC* is more than music. As we were talking, the music suddenly ended. Within five minutes, I "saw" a ripple of pain approximately two to three inches long move from the top of Aaron's head down to his toes. He screamed, "Is the music off?" I turned the tape over, and in eight to ten minutes the ribbon of pain eased and Aaron said, "I told them not to turn the music off. I have no pain as long as the music is on." Aaron's favorite *METAMUSIC* for sleep was *Sleeping Through the Rain*. He turned to *Inner Journey* to feel closer oneness with God as he made his transition.

In the next year, whenever my colleague, Kat Carroll, and I were invited into a hospital to help people in pain, we took the same three *METAMUSIC* tapes and the magic continued. The story of a five-year-old girl who had nearly drowned five weeks before our visit is a good example of "seeing is believing." As Kat and I discussed with the mother how we might assist, the nurse came in and aspirated the little girl's throat. Despite the fact that she was in a "waking coma," her eyes looked terrified. I asked the parents if we could play *Cloudscapes* to help her relax. After inserting the tape into a Walkman®, Kat and I continued to talk with the mother. Within ten minutes of starting *Cloudscapes*, the father yelled, "Oh my God, look!" We

all turned to stare at the child in his lap. All of her muscles had been rigid and contracted. But now they had relaxed back to normal positions for the first time since the near drowning. The doctors and nurses came in to witness this “minor miracle” and were amazed when shortly after *Cloudscapes* ended the girl’s muscles tightened up again. *Cloudscapes* was left with the parents and used during their daughter’s physical therapy for a year.

These and many other events have persuaded me that music combined with Hemi-Sync is truly “Meta-music”—more than music. Much of my time in ensuing years has been devoted to exploring possible explanations of the powerful effects of *METAMUSIC*.

To grasp the healing impact of music in general, we have only to look at the marvelous compilations gathered by Don Campbell—in particular, *Music and Miracles*, *Music: Physician for Times to Come*, and *The Mozart Effect*. The wealth of research referenced in these books covers the spectrum of music’s influence on almost every aspect of the listener’s body and mind. Don Campbell reports that “symptoms of arthritis and severe back pain diminish in response to drumming and toning” and that Alzheimer’s patients recover memory and focus and autistic and dyslexic children make remarkable progress with the help of music. Campbell has seen a nearly paralyzed arm move on command through the power of tone and the voice. He affirms: “I know of teenagers with burns who are soothed by Michael Jackson’s music. I have sung *Amazing Grace* in overtones to a comatose loved one and received a response. I have seen the crippled walk at evangelistic services that used prayer and song. Music and miracles—Yes!”<sup>3</sup>

Music can be a powerful aid to healing. *Nada Brahma: The World Is Sound* and *The Third Ear*, by Joachim Ernst Berendt, PhD, increased my understanding. For anyone truly interested in using music for consciousness expansion or healing, these are the books to read! Berendt, a famous jazz theorist from Germany, had an epiphany and researched all the religions to find out how sound affected the brain and consciousness. Afterward he wrote *Nada Brahma* to spotlight the world musicians who were bringing through the “new music of transformation.” His book became a cult classic within six months, has been translated into five languages, and is in its twentieth printing. Musicians and readers were so inspired by “The Temple in the Ear” chapter in *Nada Brahma* that Berendt expanded on the importance of the auditory nerve to healing in *The Third Ear*.

Those two books convinced me of the overwhelming importance of the auditory nerve to health. Berendt comments, “In reality, we and the Universe are vibration and the sound that comes into our brain stimulates not only the brain but also the entire immune system.” The auditory nerve has three times more connections to the brain than vision does, as well as connections to the thymus gland and the immune system. It also has direct connections to every organ in the body, and the sound transmitted through the auditory nerve, particularly if it is synchronous, can heal the body.

To Bradford Weeks, MD, “The ear is the Rome of the body. As a student of gross anatomy I was struck by the fact that a large number of cranial nerves lead to the ear.... As if this wide scope of neurological involvement is not enough, the ear also has a fascinating tie into the tenth cranial nerve or the vagus nerve—the path of the wandering soul. The ear is the central switchboard for our sense of time and space and for going beyond to infinity.”<sup>5</sup> As Canadian composer Murray Schafer has suggested, “With our eyes we are always at the edge of the world looking in but with our ears the world comes to us and we are always at the center of it.”<sup>6</sup>

Is it coincidental that the ear is formed exactly like an embryo, which is why it can be viewed as a microcosm for the entire body? Shiatsu teacher Watura Ohashi states, “It is logical that the ear should resemble an embryo because the embryo wants to hear.” Alfred A. Tomatis, the great French ear specialist, says that the embryo starts to develop rudimentary ears within a few days of implantation when it is just 0.9 millimeters long. The cochlea is fully developed and has reached its ultimate size four and a half months into gestation. We continue to grow until seventeen, eighteen, and nineteen years of age, but the cochlea completes its growth before birth. Stimuli that enter through the auditory nerve are extraordinarily powerful, not only for our mentation but for our health.<sup>7</sup> The investigations of Joachim Ernst Berendt and other researchers imply that the true purpose of our ears might be as “the organ of transcendence” and “the gateway to the soul.”

In his excellent article, “The Body as Music,” Larry Dossey, MD, eloquently addresses an even deeper level of music when he asks: “Why are we moved by music? One reason may be that the body itself is intrinsically musical, right down to the DNA that makes up our genes.”<sup>8</sup>

The idea that DNA and music might be connected originates with the work of Dr. Susumu Ohno, a geneticist at the Beckman Institute of the City of Hope Hospital in Duarte, California. Dr. Ohno has notated over fifteen songs based on the DNA of a variety of living organisms. He finds that “the more evolved an organism, the more complicated the music. The DNA of a single-cell protozoan for example, translates into a simple four-note repetition. But music transcribed from human DNA—such as the body’s receptor site for insulin—is much more complex. Listeners knowledgeable about classical music hear similarities between these DNA-based compositions and the music of Bach, Brahms, Chopin, and other great composers. DNA melodies are majestic and inspiring. Many persons hearing them for the first time are moved to tears: they cannot believe that their bodies, which they believed to be mere collections of chemicals, contain such uplifting, inspiring harmonies—that they are musical.”<sup>9</sup>

Not only can one make music starting with DNA, “it is possible to do the reverse: one can start with great pieces of music, assign nucleotides to the notes, and end up with a particular type of DNA. When Dr. Ohno transcribed a Chopin piece into a chemical notation, sections of the resulting formula were the DNA of a human cancer gene. It seems that even cancers have their own music!”<sup>10</sup> Now if music affects us down to the DNA, I personally believe that each of

our organs is singing its own song. We are healthy when our organs are singing in harmony, and we get sick when they are singing out of tune. From my own experiences it is clear to me that listening to *METAMUSIC* helps the body "stay in tune."

Clearly, the impact of auditory nerve connections to the brain and the body and the implications of DNA music give us greater understanding of music's power. When Hemi-Sync is added to relaxing music, however, I believe that the synergy greatly augments that power. The synchronized flow of brain-wave frequencies across the corpus callosum and throughout the entire brain in response to neuronal stimulation by music and Hemi-Sync has a greater chance of stimulating the trophotropic state, the body's innate healing state.

My search for tapes to facilitate the trophotropic state was what actually led me to TMI in 1988 for the *GATEWAY VOYAGE*. The trophotropic state is the opposite of the ergotropic state, which triggers the "fight or flight" response. Presently, we are too often in the ergotropic drive due to longer workdays and overstimulation. This lack of balance can lead to exhaustion, sleep deprivation, and illness. We need to correct this imbalance by creating more moments of trophotropic response. Researchers describe the function of the trophotropic system as the maintenance of "optimum internal balance of bodily functions for continued good health" as well as control of the somatic functions responsible for long-term well being.<sup>11</sup> It affects growth, longevity, and all vegetative functions. A key ingredient for triggering the trophotropic state is to lie down in a synchronized brain-wave state of alpha/theta for at least five to twenty minutes. This is exactly what occurs for most of us when we use *METAMUSIC*. It can also occur with other Hemi-Sync tapes, but it is easier for many to stay synchronized when there is no verbal guidance. Music is the one single input that naturally promotes synchronization of the right and left hemispheres.

The results I've observed from using Hemi-Sync for healing support have kept me investigating the technology for fifteen years. *HUMAN PLUS, POSITIVE IMMUNITY* and the *SURGICAL SUPPORT SERIES* are mainstays in my healing work, but I have been equally impressed with *METAMUSIC*'s ability to bridge cultures, generations, and settings. People with AIDS and cancer crave *METAMUSIC*, especially at nighttime, because sleep disruption is such a problem during serious illness. And *METAMUSIC* is easy to use in hospital settings and with children.

*METAMUSIC* is also a resource for people with insomnia and sleep disruptions. More than thirty million Americans suffer from insomnia and sleep disorders. "The state of the nation is drowsy,"<sup>12</sup> sleep watchers say. One of the biggest losses to modern business is the sleep-deprived night-shift worker. I've heard it amounts to \$17 billion per year. Roughly 40 percent of teenagers report sleep deficiencies. This is a definite problem for our schools, since poor sleepers report being less alert and significantly more depressed, tired, moody, and irritable. *METAMUSIC* helps people to drift off to sleep more readily and get adequate rapid eye

movement (REM) sleep, which is essential for good health. J. Allan Hobson, MD, professor of psychiatry at Harvard Medical School, calls deep REM sleep “super sleep,”<sup>13</sup> and it is during REM sleep that the immune-activating trophotropic response occurs.

Gari Carter’s presentation at the 1991 Professional Seminar was stunning.<sup>14</sup> By using the *EMERGENCY SERIES* tapes (now the *SURGICAL SUPPORT SERIES*), Gari was able to cope with a series of surgeries for facial reconstruction with minimal or no anesthetic! Hemi-Sync supports detachment from pain signals and sensations. To assuage pain, I suggest *METAMUSIC* selections such as *Inner Journey*, *Sleeping Through the Rain*, *Transformation*, *The Journey Home*, and *Midsummer Night*. *Inner Journey*, *Winds Over the World*, and *The Journey Home* should be avoided with children because they seem to go into deep altered states, which can be frightening. *Sleeping Through the Rain*, *Midsummer Night*, *Cloudscapes*, and *Portraits* are always safe. Steven Halpern, PhD, who composed the music for *METAMUSIC Deep Journeys*, feels that each of us needs a minimum of thirty minutes a day in the alpha/theta brain-wave state<sup>15</sup> (theta is 4-8 Hz and alpha is 8-13 Hz), and I concur that such a practice helps us to de-stress and stay healthier. The alpha/theta state is easily accessed with *METAMUSIC*.

Now, I would like to shift to a slightly different style of *METAMUSIC*. *Remembrance*, *Einstein’s Dream*, *Indigo for Quantum Focus*, *Seasons at Roberts Mountain*, and *Baroque Garden* were designed to stimulate a coherent brain state that would enhance learning and peak performance. These selections were created to address attention deficit disorder (ADD) and other learning challenges, as well as for those who want to study smarter, not harder. This newer format of *METAMUSIC* evolved from a pilot study conducted by Robert Sornson, PhD,<sup>16</sup> that showed an insufficiency of coordinated hemispheric brain-wave patterns in ADD sufferers, especially beta brain waves in the left hemisphere. Dr. Sornson, a director of special education services in Northville, Michigan, pointed out that research showed that those with ADD had difficulty maintaining the high levels of brain arousal associated with sustained alertness and focused attention. He discussed using Hemi-Sync with beta-harmonic sound patterns specifically designed to increase mental focus. For a more complete discussion of beta-deficiency I refer you to Dr. Daniel G. Amen’s books, *Windows into the A.D.D. Mind* (1997) and *Change Your Brain, Change Your Life* (2000).

From listening to Bob Sornson, I conceived the idea of creating some superlearning music in combination with beta patterns. I hoped this would benefit my two teenagers who had both been diagnosed with ADD. During the following two years, Sornson and I collaborated with TMI on incorporating his theories. *Remembrance*—the first “designer *METAMUSIC*,” with music composed by J.S. Epperson—was launched in 1994. Regular use of *Remembrance* and four other Hemi-Sync tapes enabled my teenage son to outgrow his ADD and to avoid taking Ritalin®. He now maintains a B-plus average and is a senior in college.

Articles by Debra Davis, MA,<sup>17</sup> and Peter Spiro 18 no. 2 (1999),<sup>18</sup> attest to the success of *Remembrance*. That success led to the creation of a second composition by Epperson in 1996, a modification of Mozart's *Sonata for Two Pianos in D Major*, titled *Einstein's Dream*. Two additional selections with beta-harmonics were introduced in 2002—*Indigo for Quantum Focus* by J. S. Epperson and *Seasons at Roberts Mountain* by Scott Bucklin. *Seasons* recreates the *Four Seasons* by Vivaldi to take advantage of Baroque music's positive effect on superlearning states.

Because these four *METAMUSIC* selections are embedded with a faster beta-harmonic, they are ideal for use during the day to increase mental energy, alertness, retention, and positive mood. The synergy of the superlearning, faster tempo musical format with the faster beta frequency patterns helps one to study longer and retain more. This style of *METAMUSIC* is best used as a sonic background. These compositions facilitate the anchoring of information to a wider neuronal pathway in the cortex. Here are a few examples:

"I was diagnosed with ADD years ago. When I first heard of the benefits that came from listening to *METAMUSIC*, I must say I was skeptical. But as I began listening to *Remembrance* I immediately noticed the difference. My breathing slowed to a steady rhythm. I relaxed naturally while staying completely alert. I was shocked to realize that I'd been studying for an hour without stopping. Listening to *Remembrance* enables me to pay complete attention to my studies now." -R. M., age nineteen.

Another person commented: "With only one day to study for the state insurance licensing exam, I thought it was hopeless. I'd never be able to remember a manual of 190 pages. Anyway, I decided to give it a shot. I began studying at 9:00 A.M. and by 1:00 P.M. was losing my ability to concentrate. I put *Einstein's Dream* into my continuous tape player and finished the book at 3:05 next morning. I passed with 86 percent, thanks to *Einstein's Dream*, which enabled me to maintain concentration for eighteen hours." (This is not recommended as a regular practice.)

A sixty-year-old man was studying to become a minister at the Dallas Theology Seminary. He was stymied by the challenge of learning both Greek and Hebrew. His mind just could not wrap itself around those languages, and he was about to have to give up his dream. A friend gave him *Remembrance* to see if it would help in the clutch. Within the next two months he mastered both languages with the aid of *Remembrance*. He passed with an A and is now pastor at Baylor Hospital.

For working with clients with ADD, dyslexia, or other learning challenges, I have found other Hemi-Sync CDs to be invaluable in combination with *METAMUSIC*. These include HUMAN *PLUS Attention, Think Fast, Brain: Repairs & Maintenance, Buy the Numbers* (for math) and

MIND FOOD® *Retain-Recall-Release*. The *Progressive Accelerated Learning* student and executive albums are also helpful with students.

Music is truly a bridge to good health, and METAMUSIC is a marriage between the innate power of music and the wonder of Hemi-Sync. Deepak Chopra, MD, states that “musicians have a responsibility to their society to fashion sounds that uplift its members and create heaven on earth.... Music spiritualizes its listeners and colors them with the Divine.”<sup>19</sup> It is our duty to humanity, according to Chopra, “to be as healthy as possible. Linked as we are as ripples on the vast cosmic ocean, the state of our individual health—whether physical, mental, or spiritual—affects everyone else. Each of us is, in effect, a ‘wave’ of sound that hums a tune through our lives.”<sup>20</sup>

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